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**“Food for Thought” on
Mines other than Anti-Personnel Mines (MOTAPM)
for the second meeting of experts in July 2002
Sensitive fuzes**

Working Paper prepared by the Delegation of Germany

1. Scope

The determined battle against the suffering caused by mines is of special concern to the International Community. The banning of anti-personnel mines (Ottawa Convention) represents an important step towards this aim.

However, the landmine problem has only partly been reduced by the Ottawa regime and the Amended Protocol II of CCWC (UN Conventional Arms Convention). Mines have been used in numerous military conflicts over the past few years. The number of casualties has been reduced, but is still too high.

There is a strong need for action to raise the humanitarian standards for anti-vehicle mines (AVM) within the framework of the UN Conventional Arms Convention in order to reduce the risk to the civil population by also addressing the issue of the sensitivity of fuzes and of anti-handling devices in a suitable manner.

2. Humanitarian Concerns

Anti-vehicle mines are a defensive weapon permissible according to international humanitarian law and recognised by the International Community. There is the need to ensure the protection and survivability of soldiers as well as the operational capability of armed forces, and, where applicable, within the framework of alliance commitments. However, there are also humanitarian considerations to be taken into account to protect the civil population.

Some types of anti-vehicle mines, especially those equipped with sensitive fuze mechanisms, can irrespective of their design as AVMs also be actuated by persons and thus also by

civilians, if certain pre-conditions are given. Their effect can thus be similar to that of anti-personnel mines. In the sense of the further development of humanitarian arms control policy, the humanitarian standard for such landmines should hence be raised within the UN Conventional Arms Convention.

One possible approach to avoid accidents involving non-combatants is to identify appropriate measures how to modify anti-vehicle mines with sensitive fuzes.

3. Objective

The objective is therefore, within the framework of the UN Conventional Arms Convention, to determine and agree upon suitable concrete technical parameters or limits (so-called “best practices”) for fuze mechanisms which make it impossible for AVM to be actuated by persons.

Moreover, it cannot be in the interests of an army laying a relatively expensive AVM designed to destroy a multi-million dollar tank, that it might be actuated by anything or anyone other than the envisaged target. To achieve its military purpose, an AVM should detonate when there is the presence, proximity or contact of an enemy vehicle of the targeted type.

4. Definition

So far, there is neither a unanimous technical definition of “sensitive fuze mechanisms” nor can concrete limits for an actuation be derived from the existing Convention. This is not just a question of the “normal” case of a minimum weight required to actuate a simple pressure fuze, but rather of different criteria for the various fuzes, like:

- trip wires,
- break wires,
- tilt rods,
- pressure-actuated fuzes,
- magnetic fuzes,
- acoustic fuzes,
- vibration fuzes,
- infra-red fuzes,
- double and triple-fuzes,
- anti-clearance fuzes (anti-handling),
- etc.

5. Possible Measures

In order to address the issue of best practices for AVMs with sensitive fuses, the following steps are recommended:

- prepare a list of existing fuze mechanisms and their technical function;
- identify the risk that a person might actuate such fuze mechanisms through an accidental or inadvertent act;

- identify specific technical measures which might be taken by states to minimise the risk that a person might actuate such fuze mechanisms;
- identify best practices as regards the design and use of fuze mechanisms for AVMs in order to eliminate or at least minimise the risk;
- agree on a common understanding of new standards and possible consequences for AVMs which do not meet such standards.

Considerations and proposals of such technical measures have to take into account military operational and procurement factors and should be designed to address clearly identified humanitarian issues as opposed to unquantifiable theoretical risks.
